

ORCHID CHEMICALS & PHARMACEUTICALS LIMITED

Established 1971, SIDCO Industrial Estate, Andheri (E), MUMBAI, INDIA

Starting Date: 10/12/1999

Completion Date: 10/13/1999

Batch Cycle No.: 57115

Time: 10:00 AM

Time: 10:00 AM

Time: 10:00 AM

Time: 10:00 AM

TRIAL-1

Batch No. : ACF 1001
 Batch Size : 910 kg of FURAC
 Actual Output : 912 kg

| S.No. | Raw Materials | Unit | Standard Quantity | Actual Quantity | QC Ref. No. | Lot No. | Remarks |
|-------|------------------------|------|-------------------|-----------------|---------------|---------|---------|
| 1. | Purified water for TFA | Ltr | 955 ± 10 | 945.0 | C/ 99143 | 100 | |
| 2. | Sodium Sulfide | Kg | 54.6 | 51.500 | Q20111602138 | 100 | |
| 3. | Ethyl Acetate for TFA | Ltr | 635 ± 10 | 637.0 | QMX/1013/99 | 100 | |
| 4. | Sodium Bi-carbonate | Kg | 31 ± 4 | 34.0 | Q2011016193 | 100 | |
| 5. | Hcl (1:1) | Ltr | 160 ± 15 | 150.0 | 100 | 100 | |
| 6. | FURAC | Kg | 91.0 | 91.0 | Q2011016198 | 100 | |
| 7. | BF3 des | Kg | 124 ± 2 | 124.0 | 100 | 100 | |
| 8. | Furyl Chloride | Kg | 30.0 | 29.6 | Q201142233191 | 100 | |
| 9. | Vicks - C | Kg | 1.80 | 1.8 | Q20110287198 | 100 | |
| 10. | Vicks - H | Kg | 0.60 | 0.60 | Q20114983198 | 100 | |
| 11. | Purine | Kg | 1.80 | 1.80 | Q20115037198 | 100 | |
| 12. | NH4OH (12.15%) | Ltr | 220 ± 25 | 216.00 | TAR/96064 | 100 | |
| 13. | Purified water | Ltr | 745 ± 10 | 745 | C/ 991511 | 100 | |
| 14. | Ethyl Acetate | Ltr | 810 ± 25 | 820 | QMX/1013/99 | 100 | |

QC/CLIA
 Head Q.A.
 100% checked

ORCHID
 PROCESS SHEET
 ISSUED ON

REVIEWED
 APPROVED BY: *Shivaji*
 Shift In-charge: *Shivaji*

PRODUCTION INCHARGE: *Shivaji*
 Format APPROVED BY: *Shivaji*

HEAD PD LAB: *Shivaji*

Time: 10:00 AM

HEAD Q.A.: *Shivaji*

ORCHID CHEMICALS & PHARMACEUTICALS LIMITED
Sector-18, JAI SHIKHA Industrial Estate, Aligarh, 202010, INDIA

Page 1 of 6

BATCH PROCESSING RECORD - RIFACAT PREPARATION

Date

Batch No. : ACF/Cro 1/21
Stage : TFA PREPARATION
Equipment No. : QLR - 700

TRIAL - 1

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift / Chemist / Operator |
|-------|--|-------------------|-----------------|----------------|-------|-------|----------------|---------|--|
| | | | | Std | From | To | Total | Std | Actual |
| 1. | Check the cleanliness status of the reactor as per SOP No QAD 05.01 | - | - | 12.5 | 12.5 | 12.5 | 10 | - | - |
| 2. | Charge Purified water | 615 ± 5 Ltr. | 610.0 | 15.35 | 15.35 | 15.35 | 15 | - | - |
| 3. | Cooling | - | - | 10-20 | 10-45 | 10-45 | 10-30 | 22±2 | 20-3 |
| 4. | Charge Sodium sulphide | 54.6 Kg. | 55.0 | 02-05 | 16-05 | 16-05 | 05 | 22±2 | 20-2 |
| 5. | Stir and Give sample to Q.C to check the sodium hydrosulphide content. | - | - | 10-20 | 16-05 | 16-18 | 13 | 22±2 | 19-9 It should be more than 5.85% Observed Value : 5.85% |
| 6. | Charge Fury chloride slowly through GLR-703 | 50.0 Kg. | 52.0 | 16-00 | 16-18 | 16-40 | 22 | 22±2 | 19-9 |
| 7. | Stirring | - | - | 05-10 | 16-40 | 17-40 | 20 | 22±2 | 24-3 |
| 8. | Charge Ethyl Acetate | 455 ± 5 Ltr. | 444.149 | 10-15 | 17-05 | 17-05 | 11 | 22±2 | 24-3 Ethyl Acetate : 24-3 |
| 9. | Stirring | - | - | 02-05 | 17-11 | 17-11 | 05 | 22±2 | 24-3 |
| 10. | Add HCl (1:1) slowly | 70 ± 5 Ltr. | 69.0 | 10-15 | 17-16 | 17-16 | 05 | 22±2 | 24-3 |
| 11. | Stirring | - | - | 10-15 | 17-18 | 17-22 | 15 | 22±2 | 22-1 |
| 12. | Seeding | - | - | 10-20 | 19-55 | 19-55 | 20 | 22±2 | 21-2 |

QKumar
Shift In-charge

Plant In-charge

PREPARED BY : PRODUCTION INCHARGE : *QKumar*
FORMAT APPROVED BY : READ PRODUCTION : *QKumar*

HEAD Q.A. : *QKumar*
HEAD P.D. : *QKumar*

HEAD Q.A. : *QKumar*

BATCH PROCESSING RECORD - FURACIA PREPARATION

Page 2 of 6

Batch No. : ACP / 0701/99
 Stage : TFA PREPARATION
 Equipment No. : GLR - 700

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist / Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|---|
| | | | | Std | From | To | Total | | |
| 13. | Separate the Aq layer in NCF-T-702 | - | - | 20-30 | 18.5 | 18.35 | 20 | 22.2 | 2.0.5 |
| 14. | Charge Purified water to Ethyl acetate layer. | 320±5 L. | 320.01 L. | 10-15 | 18.35 | 18.45 | 10 | 22.2 | 2.0.5 |
| 15. | Add sodium Bi -carbonate to adjust the pH. | 34±4 Kg. | 34.04 Kg. | 30-45 | 18.45 | 19.40 | 55 | 22.2 | pH should be 7.0 - 7.7 Observed pH: 7.02 |
| 16. | Stirring | - | - | 20-30 | 19.45 | 20.15 | 30 | 22.2 | 2.0.8 |
| 17. | Settling | - | - | 10-15 | 20.15 | 20.30 | 20 | 22.2 | 2.0.8 |
| 18. | Separate lower aqueous layer in earboys | - | - | 10-15 | 20.30 | 20.40 | 10 | 22.2 | Collected Aq. Layer in clean earboys Volume of aq. Layer: 21.0 L |
| 19. | Send Ethyl Acetate layer for recovery | - | - | 10-15 | 20.45 | 20.46 | 05 | 22.2 | 2.0.7 |
| 20. | Clean the reactor as per SOP No: PRD/0703/11 | - | - | 10-20 | 20.46 | 20.47 | 05 | 22.2 | 2.0.7 |
| 21. | Check the cleanliness status of the reactor as per SOP No QAD/05/01 | - | - | 05-10 | 20.47 | 20.50 | 05 | 22.2 | 2.0.7 |
| 22. | Charge aqueous layer of step No. 18 | - | - | 15-20 | 20.50 | 21.00 | 10 | 22.2 | 2.0.7 |
| 23. | Charge Ethyl Acetate | 160±5 L. | 180.0 L. | 10-15 | 21.00 | 21.80 | 10 | 22.2 | 2.0.7 |
| 24. | Add HCl (1:1) slowly | 90±5 L. | 11.0 L. | 10-20 | 21.00 | 21.00 | 20 | 22.2 | 2.0.7 |
| 25. | Stirring | - | - | 10-15 | 21.30 | 21.40 | 10 | 22.2 | 2.0.7 |
| 26. | Settling | - | - | 10-15 | 21.40 | 21.20 | 40 | 22.2 | 2.0.7 |
| 27. | Separate lower aqueous layer | - | - | 20-30 | 22.20 | 22.50 | 30 | 22.2 | 2.0.7 Vol. of aqueous layer: 1.6 L |
| 28. | Cool the Ethyl acetate layer | - | - | 10-20 | - | - | - | 12.2 | 2.0.7 |
| 29. | Collected Ethyl Acetate layer in clean earboys and check the MC | - | - | 15-25 | 22.50 | 23.05 | 15 | 12.2 | 2.0.7 MC: 2.702 L. |
| 30. | Clean the reactor as per SOP No: PRD/0703/11 | - | - | 10-20 | 23.05 | 23.20 | 15 | - | 2.0.7 |

*) The layer separation must be done very carefully. There should not be any free water in EA layer.

Okkay,

 Shift Interchange

Plant In-charge

BATCH PROCESSING RECORD - FURACA PREPARATION

Page 3 of 6

Batch No. : ACN / 001 / 99
Stage : CONDENSATION
Equipment No. : GLR - 701

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist / Operator |
|-------|--|-------------------|-----------------|----------------|-------|-------|----------------|---------|--|
| | | | | Std | From | To | Total | Std | Actual |
| 31. | Check the cleanliness status of reactor as per SOP No. : PRD 0501 | - | - | - | 14.30 | 14.40 | 10 | RT | - |
| 32. | Charge Ethyl Acetate and check the M/C. | 365 ± 5 Lt. | 365.4 Lt. | 20 - 40 | 14.40 | 15.00 | 20 | 2.1 | M/C should be Not more than 0.5% O-35 Observed: 0.05% <i>✓</i> |
| 33. | Cool under nitrogen | - | - | 45 - 60 | 15.00 | 15.50 | 50 | 5±2 | - |
| 34. | Purge BF3 gas | 124 ± 2 Kg | 124.0 | 180-380 | 1550 | 20.00 | 250 | 3 - 12 | Make sure the BF3 scrubber is on. The ending temp. must be 11±1°C <i>✓</i> |
| 35. | Charge Vitex-C | 1.8 Kg | 1.8 | 02 - 05 | 20.00 | 20.05 | 05 | 12.0 | C 9.7 <i>✓</i> |
| 36. | Increase the temperature. (if required) | - | - | - | - | - | - | 11±1 | 09.7 <i>✓</i> |
| 37. | Charge 7-ACA | 91.0 Kg | 91.0 | 05 - 10 | 23.10 | 23.15 | 05 | 11±1 | 10.2 <i>✓</i> |
| 38. | Charge TFA (Ethyl acetate Layer from step No.29 | 240.20 Lt. | 240.0 | 05 - 10 | 23.15 | 23.25 | 10 | 11±1 | 10.2 <i>✓</i> |
| 39. | Warm up using hot water | - | - | - | - | - | - | 30±1 | - |
| 40. | Slit and Give sample for HPLC in every 60 minutes | - | - | 120 - 240 | 23.25 | 03.05 | 21.0 | 30±1 | 7ACA content should not be more than 1% <i>✓</i> |
| 41. | Transfer for hydrolysis | - | - | 10 - 25 | 03.05 | 03.15 | 10 | 30±1 | 29.4 <i>✓</i> |
| 42. | Flushing of reactor with Ethyl acetate and transfer to hydrolysis reactor. | 5 ± 0 Lt. | 5.0 | - | 03.15 | 03.20 | 05 | - | - |
| 43. | Clean the reactor as per SOP No: PRD 07/0311 | - | - | 10 - 20 | 03.20 | 03.40 | 20 | - | - |

REACTION MONITORING DATA

| Sl. No. | After Hour | HPLC Time | TACA | ACF | TFA | 01 |
|---------|------------|-----------|-------|-------|-------|----------|
| 1 | 60 | 60 min | 5.91% | 84.92 | 8.04% | NMT 2.0% |
| 2 | 120 | 120 min | 2.92% | 90.06 | 4.84 | 1.20 |
| 3 | 180 | 150 min | 1.69 | 91.07 | 2.84 | 4.40 |
| 4 | 240 | 180 min | 0.88 | 94.54 | 2.67 | 1.90 |

✓
Shift In-charge
Plant In-charge

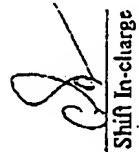
BATCH PROCESSING RECORD - FURACAP PREPARATION

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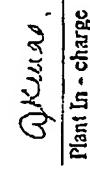
Batch No. : ACF / 00111
Stage : HYDROLYSIS
Equipment No. : GLR - 709

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Signature of Shift Chemist / Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|---|
| | | | | Std | From | To | | | |
| 44. | Check the cleanliness status of the reactor as per SOP No. QAD05.01 | - | - | - | 02.00 | 02.15 | 15 | - | |
| 45. | Charge Purified Water | 275 ± 10 L | 275.0 | 10 ± 5 | 02.15 | 02.30 | 15 | - | |
| 46. | Cool | - | - | 20 - 30 | 02.30 | 03.00 | 30 | 312 | |
| 47. | Add Vitex - II | 0.600 kg | 0.60 | 01.02 | 03.00 | 03.02 | 02 | 312 | |
| 48. | Receive the condensation mass and add painc | 1.800 kg | 1.80 | - | 03.02 | 03.25 | 23 | 05 - 20 | Final temperature will go to 15-20°C |
| 49. | Add NH ₄ OH solution (15-20%) | 195.245 L | 216 | 90 - 110 | 03.25 | 05.10 | 105 | 20:1 | pH should be 3.45 - 3.55 Actual pH: 3.61 |
| 50. | Stir | - | - | 30 - 35 | 5.10 | 05.40 | 30 | 20:1 | |
| 51. | Check the pH and readjust (if required) | - | - | 05.35 | 05.40 | 05 | - | 20:1 | pH should be 3.45 - 3.55 Actual pH: 3.60 |



Shift In-charge



Plant In-charge

BATCH PROCESSING RECORD - FURACA PREPARATION

Page 5 of 6

Batch No. : ACF/001/99
 Stage : CENTRIFUGING & MILLING
 Equipment No. : KMF-EF-200/GNR-701

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist / Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|----------------------------------|
| | | | | Std | From | To | Total | Std | Actual |
| 52. | Check the cleanliness status of the centrifuge. QAD05.02 | - | - | 05.25 | 05.40 | 15 | - | - | <i>✓✓✓✓✓</i> |
| 53. | Feed slurry to centrifuge | - | - | 60-120 | 05.40 | 06.10 | 30 | 2011 | 20.5 |
| 54. | Spin under nitrogen | - | - | 30-60 | 06.10 | 06.40 | 30 | - | <i>✓✓✓✓✓</i> |
| 55. | Clean the reactor as per SOP No: PRD.07.311 | - | - | 06.40 | 06.45 | 05 | - | - | <i>✓✓✓✓✓</i> |
| 56. | Spray washing with Ethyl acetate through reactor. | 90±5 L | 200.0 L | 10-20 | 06.45 | 06.55 | 10 | - | <i>✓✓✓✓✓</i> |
| 57. | Spin under nitrogen | - | - | 60-90 | 06.55 | 07.30 | 30 | - | <i>✓✓✓✓✓</i> |
| 58. | Unload the material in double polybags. | - | - | 07.30 | 09.15 | 10.5 | - | - | <i>✓✓✓✓✓</i> |
| 59. | Clean the centrifuge as per SOP No: PRD.07.0301 | - | - | 10-20 | 09.15 | 09.30 | 15 | - | <i>✓✓✓✓✓</i> |
| 60. | Check the cleanliness status of the multi mill as per SOP No:QAD05.01 | - | - | 10-20 | 09.30 | 09.35 | 20 | - | <i>✓✓✓✓✓</i> |
| 61. | Mill the wet cake using 5 mm mesh. | - | - | 60-90 | 09.45 | 10.15 | 90 | - | <i>✓✓✓✓✓</i> |
| 62. | Clean the multi mill Granulator as per SOP No: PRD.07.0304 | - | - | 20-30 | 09.45 | 10.05 | 20 | - | <i>✓✓✓✓✓</i> |

Wet Weight : 338.05 Kgs


Shift In - charge

Q. Kumar
 Plant In - charge

BATCH PROCESSING RECORD - FURACI PREPARATION

Page 6 of 6

Batch No. : ACF / 061199
 Stage : SLURRY WASHING OF CAKE
 Equipment No. : G.I.R. 702 (CF.20) MAN. / GNR.

Date

ORCHID CHEMICALS & PHARMACEUTICALS LIMITED
Latajli, Jharsuguda, Odisha, India - 752001, INDIA
BATCH PROCESSING RECORD - EXTRACTION OF FLUORIDES FROM ML

Page 1 of 1

Date

Batch No. : ACF / 001 | 97
Stage : Extraction of Fluorides from batch ML
Equipment No. : SSR - 706

TRIAL.1

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | | pH | Remarks | Sign of Shift Chemist / Operator |
|-------|--|-------------------|-----------------|----------------|-------|-------|----------------|--------|------|--|--|
| | | | | Std | From | Total | Std | Actual | | | |
| 1. | Check the cleanliness status of the reactor as per SOP No QAD 01 | - | - | 17.40 | 18.00 | 30 | - | - | - | - | ✓ |
| 2. | Charge mixture of ML and all EA and water washing | 500 L | 500 L | 18.00 | 18.30 | 30 | - | - | - | - | ✓ |
| 3. | Stirring | - | - | 10-15 | 18.30 | 18.45 | 15 | 22.2 | 22.5 | - | ✓ |
| 4. | Settling | - | - | 10-15 | 18.45 | 19.00 | 15 | 22.2 | 22.5 | - | ✓ |
| 5. | Separate the layers | - | - | 10-15 | 19.00 | 19.10 | 10 | 22.2 | 22.5 | Check fluoride in aqueous layer Observed : 270 mg/L | ✓ |
| 6. | Transfer aqueous layer to SSR-713 | - | - | 19.10 | 19.25 | 15 | 22.2 | 22.5 | - | - | ✓ |
| 7. | Charge water to organic layer | 185 L | 185 | 02-05 | 19.25 | 19.30 | 5 | 22.2 | 22.8 | - | ✓ |
| 8. | Adjust pH by adding caustic lye | 15-20 L | 17 L | 10-15 | 19.30 | 19.45 | 15 | 22.2 | 22.5 | - | ✓ |
| 9. | Stirring | - | - | 20-25 | 19.45 | 20.10 | 25 | 22.2 | 22.0 | - | ✓ |
| 10. | Settling | - | - | 10-15 | 20.10 | 20.40 | 30 | 22.2 | 21.0 | Check fluoride in aqueous layer Observed : 171.0 mg/L | ✓ |
| 11. | Separate the layer | - | - | 10-15 | 20.40 | 20.50 | 10 | 22.2 | 21.2 | - | ✓ |

Q/Kuwa,
Plant In-charge

PREPARED BY : PRODUCTION INCHARGE : Q/Kuwa
HEAD PRODUCTION : D. S. D.
FORMAT APPROVED BY : Shift In-charge
HEAD LAB. : D. S. D.
HEAD Q.A. : S. G. R.

BATCH PROCESSING RECORD - EXTRACTION OF FLUORIDES FROM M.L.

Page 1 of 3

Batch No. : ACF / 00 1/96
 Stage : Extraction of Fluoride from Batch M.L.
 Equipment No. : SSR-706

Date : _____

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature 'C | | pH | Remarks | Sign of Shift Chemist/ Operator |
|-------|--|-------------------|-----------------|----------------|-------|-------|----------------|------|---------------------------------|---------|---------------------------------|
| | | | | Std | From | To | Total | Std | Actual | | |
| 12. | Transfer aqueous layer to SSR-713 | - | - | 10-15 | 20.50 | 21.05 | 15 | 22.2 | 21.5 | | |
| 13. | Charge water to organic layer | 185.0 l.t. | 185.1 | 02-05 | 21.05 | 21.10 | 5 | 22.2 | 22.0 | | |
| 14. | Adjust pH by adding caustic lye solution | 05-10 Lt. | 05 | 10-15 | 21.10 | 21.25 | 15 | 22.2 | 21.0 | 7.0-7.5 | |
| 15. | Stirring | - | - | 20-25 | 21.85 | 21.90 | 25 | 22.2 | 21.5 | | |
| 16. | Settling | - | - | 10-15 | 21.50 | 22.10 | 20 | 22.2 | 21.5 | | |
| 17. | Separate the layer | - | - | 10-15 | 22.10 | 22.35 | 15 | 22.2 | 21.5 | | |
| 18. | Transfer aqueous layer to SSR-713 | - | - | 10-15 | 22.70 | 22.90 | 10 | 22.2 | 21.5 | | |
| 19. | Charge water to Organic layer | 185 l.t. | 185.09 | 02-05 | 22.10 | 22.35 | 25 | 22.2 | 21.5 | | |
| 20. | Adjust pH by adding caustic lye solution (if required) | - | - | 10-15 | 22.35 | 22.40 | 05 | 22.2 | 21.3 | 7.0-7.5 | |
| 21. | Stirring | - | - | 20-25 | 22.40 | 22.45 | 20 | 22.2 | 21.2 | | |
| 22. | Settling | - | - | 10-15 | 23.00 | 23.15 | 15 | 22.2 | 21.3 | | |
| 23. | Separate the layer | - | - | 10-15 | 23.45 | 23.50 | 15 | 22.2 | 21.9 | | |
| 24. | Transfer aqueous layer to SSR-713 | - | - | 10-15 | 23.30 | 23.40 | 10 | 22.2 | 21.9 | | |
| 25. | Evap. residue layer in drums and sent to recovery of ethyl acetate | - | - | 23.40 | 23.55 | 15 | 22.2 | 21.5 | Volume of Ethyl Acetate Layer : | | |

A.Kumar,
 Plant In-charge

Shift In-charge

Batch No. : ACF / 001 Date : 10/10/07
 Stage : Recovery of Fluorides from Aqueous Layer
 Equipment No. : SSR - 713

BATCH PROCESSING RECORD - EXTRACTION OF FLUORIDES FROM ML

Page 3 of 3

Date

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | | pH | Remarks | Sign of Shift Chemist / Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|------------|--------|---------|----------------------------------|
| | | | | Std | From | To | Total | Std | Actual | | |
| 26. | Check the cleanliness status of reactor as per SOP No. : PRD 0501 | - | - | 1650 | 19.20 | 10 | 2052 | - | 23.0 | | |
| 27. | Check the receiving of aqueous solution from step 6.12 & 224 | | | 19.00 | 19.05 | 9.5 | 2012 | 9.11 | | | |
| 28. | Adjust the pH by caustic lye (If required) | 60-70 L | 52.08 | 30-40 | 3.35 | 405 | 30 | 2012 | 22.4 | 7.0-7.5 | |
| 29. | Stirring (Check pH) | | | 15-20 | 4.05 | 30 | | 7.0-7.5 | 7.11 | | |
| 30. | Heat to distill out ethyl acetate upto 85°C vapour temperature | | | 180-300 | 4.25 | 09.15 | 300 | Up to 95°C | 75° | | |
| 31. | Pump to PVR -714 for fluoride recovery | | | | 0925 | 0935 | 10 | | | | |

Note : The residual solution after Ethyl acetate recovery "SHOULD NOT" be pumped to MPDU area tanks. It has to be recovered in Cefzolin plant only.

P. Kalra
 Shift In-charge

Q. Khera,
 Plant In-charge

ORCHID CHEMICALS & PHARMACEUTICALS LIMITED
Factory: 118 - 147, SIDCO Industrial Estate, Alibaug, INDIA
BATCH PROCESSING RECORD - CERTIFICATE FOR HYDROCHLORIDE

Page 1 of 7

Batch No. : CFCL / 001 / 99
Stage : CONDENSATION
Equipment No. : GLR - 304

TRIAL - 1

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Signature of Shift Chemist / Operator |
|-----------------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|---|
| | | | | Start | To | Total | | | |
| 1. | Check the cleanliness status of the reactor as per SOP No. QAD05.01 | - | - | 15.45 | 16.00 | 1.5 | - | - | ✓ E.S. |
| 2. | Charge THF | 700.00 L | 700.00 L | 10 - 20 | 16.40 | 16.20 | 20 | - | ✓ E.S. |
| 3. | Charge FURACIA Wet | - | 262.49 kg | 10 - 15 | 19.30 | 19.45 | 15 | 9.0 | From 91 Kgs. FURACIA 100% in water by weight ✓ E.S. |
| 4. [✓] | Charge purified Water (see Remarks) | 301.54 L | 301.54 L | 10 - 15 | 19.00 | 19.15 | 15 | - | • (455 - (15% weight of Purata - 109)) 449 - (262.49 - 109) ✓ E.S. |
| 5. | Cooling by using -25°C brine | - | - | 120 - 150 | 17.00 | 17.00 | 120 | 4±1 | 5.0 Already Tracked ✓ E.S. |
| 6. | Charge MAEM | 127.400 Kg | 127.44 Kg | 10 - 15 | 19.50 | 20.00 | 10 | 4±1 | 4.8 ✓ E.S. |
| 7. | Flush with THF | 30.00 L | 30.00 L | 10 - 15 | 20.50 | 20.15 | 15 | 4±1 | 4.5 ✓ E.S. |
| 8. [✓] | Add Aminoborane | 53.2 Kg | 53.8 Kg | 45 - 60 | 20.15 | 21.05 | 70 | 4±1 | pH should be between 9-10 Observed pH: 9.15 ✓ E.S. |
| 9. [✓] | Stir and Give sample for reaction monitoring | - | - | 240 - 300 | 21.20 | 21.25 | 23.5 | 4±1 | 4.2 ✓ E.S. |

✓ indicates critical process / operation parameter

REACTION MONITORING

| S.No. | Actual Time | Reaction Monitoring Minutes | % of CFCL | % of Mass | % of NDT | % of OI |
|-------|----------------|-----------------------------|-----------|-----------|----------|---------|
| 1. | 23.25 | 120 | 1.35 | 76.25 | 7.54 | 12.74 |
| 2. | 00.25 | 180 | 0.91 | 72.92 | 6.00 | 1.18 |
| 3. | 01.10 | 240.25 | 0.91 | 73.13 | 6.62 | 1.24 |
| 4. | | 300 | | | | |
| | Standard limit | | NMT | | | |
| | | 1.0 % | | | | |

✓
Shift In-charge

Plant In-charge

PREPARED BY : PRODUCTION IN-CHARGE: QKumar

HEAD PRODUCTION: Yashwant

HEAD Q.A.: Yashwant

FORMAT APPROVED BY: Yashwant

HEAD PD LAB: Yashwant

HEAD Q.A.: Yashwant

BATCH PROCESSING RECORD—CERTIFUR INTROCHLORIDE

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Batch No. : CFCI/001/99
 Stage: EXTRACTION
 Equipment No. : GLR - 301,304,307

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist / Operator | |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|----------------------------------|-------|
| | | | | Std | From | To | Total | Slk | Actual | |
| 10. | Charge Ethyl Acetate and simultaneously raise the temperature using CTF water | 655.0 Lt. | 685 | 15 - 20 | 01:20 | 01:35 | 15 | 164 | 15.3 | K.Rai |
| 11. | Add Purine | 4.500 Kg | 4.5 | 02:05 | 01:35 | 01:38 | 03 | 164 | 15.1 | K.Rai |
| 12. | Add Vitex | 4.500 Kg | 4.5 | 02:05 | 01:38 | 01:40 | 02 | 16: | 15.2 | K.Rai |
| 13. | Starting | ... | ... | 15 - 20 | 01:40 | 02:00 | 20 | 163 | 15.2 | K.Rai |
| 14. | Salting | ... | ... | 20 - 30 | 02:00 | 02:20 | 20 | 162 | 15.8 | K.Rai |
| 15. | Check the cleanliness status of the reactor GLR-307 as per SOP No. QAD05.01 | ... | ... | ... | 02:15 | 02:20 | 05 | ... | ... | K.Rai |
| 16. | Separate the layer and collect the aqueous layer in GLR-307 | ... | ... | 10:15 | 02:20 | 02:35 | 15 | 16 | 15.8 | K.Rai |
| 17. | To the aqueous layer, charge ethyl Acetate in GLR-307 | 360.00 Lt | 36.5 | 10:15 | 02:35 | 02:50 | 15 | 16: | 15.8 | K.Rai |
| 18. | Straining | — | — | 15 - 20 | 02:50 | 03:05 | 15 | 16: | 16.1 | K.Rai |
| 19. | Sealing | — | — | 15 - 20 | 03:05 | 03:25 | 20 | 16: | 16.1 | K.Rai |
| 20. | Check the cleanliness status of the reactor GLR-307 as per SOP No. QAD05.01 | — | — | 05:10 | 03:20 | 03:35 | 25 | — | — | K.Rai |
| 21. | Separate the layer from GLR-307. Collect the aqueous layer to GLR-303 | — | — | 45:60 | 03:35 | 04:05 | 20 | 16:7 | Volume: 650 | K.Rai |
| 22. | Check the cleanliness status of the reactor GLR-304 as per SOP No. QAD.05.01 | — | — | — | — | — | — | — | Not Required | K.Rai |
| 23. | Transfer the Ethyl Acetate layer to GLR - 304 | — | — | 10:20 | 04:05 | 04:15 | 10 | 16: | 16.1 | K.Rai |

D. M
Plant In-charge

D. M
Shift In-charge

BATCH PROCESSING RECORD-CEFTIOFOR HYDROCHLORIDE

Page 3 of 7

Batch No. : CFCI / O / 11/9
 Stage : IInd EXTRACTION
 Equipment No. : GLR - 304

Date :

| S.N.O. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Std | Actual | Remarks | Sign of Shift Chemist / Operator |
|--------|---|-------------------|-----------------|----------------|-------|-------|-----|--------|---------|------------------------------------|
| | | | | From | To | Total | | | | |
| 24. | Charge purified Water in Ethyl Acetate layer in GLR - 304 | 180.0 Lt. | 180 | 15-20 | 04.45 | 04.23 | 15 | 16±1 | 16.4 | K. RA. |
| 25. | Stirring | - | - | 15-20 | 04.20 | 04.35 | 15 | 16±1 | 16.6 | K. RA. |
| 26. | Settling | - | - | 15-20 | 04.35 | 04.50 | 15 | - | - | K. RA. |
| 27. | Separate the aqueous layer and transfer to GLR-303 | - | - | 30-40 | 04.50 | 05.10 | 20 | - | - | K. RA. |
| 28. | Transfer the Ethyl acetate layer to PRC - 322 | - | - | 30-45 | 05.30 | 11.10 | 30 | - | - | Volume: 1620 L of FA + Toluene. |


 Shift In-charge


 Plant In-charge

BATCH PROCESSING RECORD - CEFETOFUR HYDROCHLORIDE

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Batch No. : CFCU/00/199
 Stage : III Extraction and Charcolisation
 Equipment No. : GLR - 301, 307

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist/ Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|---|
| | | Std | From | To | Total | Std | Actual | | |
| 29. | Charge purified water in the combined aqueous layer in GLR-303 | 455.00 | 455 | 10-20 | 4-15 | 4-25 | 1.0 | 2012 | 18-2 |
| 30. | Stirring | .. | .. | 05-10 | 04-25 | 4-30 | 0.5 | 2012 | 18-0 |
| 31. | Change TfF | 1250.00 | 1250 | 15-20 | 04-10 | 4-50 | 2.0 | 2012 | 18-2 |
| 32. | Add Sodium Chloride | 211.00 | 211.0 | 15-20 | 04-50 | 05-05 | 1.5 | 2012 | 18-3 |
| 33. | Stirring | .. | .. | 15-20 | 05-05 | 05-25 | 2.0 | 2012 | 18-3 |
| 34. | Add conc. HCl to adjust the pH | 45 Ltr. | 41 | 30-45 | 05-25 | 05-50 | 2.5 | 2012 | 18-4 |
| 35. | Stirring | .. | .. | 10-15 | 05-50 | 06-05 | 1.5 | 2012 | 18-6 |
| 36. | Settling | .. | .. | 30-40 | 06-05 | 07-40 | 5.5 | 2012 | 18-6 |
| 37. | Separate the aqueous layer and collect in PRC-123 | .. | .. | 30-45 | 07-05 | 07-45 | 4.5 | 2012 | 18-4 |
| 38. | Charge Etho carbam in TfF layer | 18.0 | 18.0 | 02-05 | 09-15 | 09-40 | 0.5 | 2012 | 18-6 |
| 39. | Stirring | .. | .. | 30-45 | 07-30 | 08-30 | 4.0 | 2012 | 19.0 |
| 40. | Check the cleanliness status of the sparkler filter as per SOP No.QAD.05.05 | .. | .. | 05-10 | 08-20 | 08-30 | 1.0 | .. | .. |
| 41. | Filter the solution through SF - 104/302 and collect the filtrate in GLR-307 | .. | .. | 08-30 | 09-20 | 09-30 | 0.0 | 2012 | 19.5 |
| 42. | Flush the reactor with TfF at the end of filtration over and collect the filtrate through SF-301/302 in GLR-307 | 200.00 | 200.0 | 09.30 | 09.45 | 15 | 2012 | 19.8 | Operate the sparkler filter as per SOP No: PRD.03.0103 Vol. of filter = 15.6 L |
| 43. | Clean the reactor as per SOP. No: PRD.03.0008 GLR-303. | .. | .. | 09.50 | 10-00 | 10.0 | .. | .. | Clean the sparkler filter as per SOP No: PRD.03.0104 Vol. of filter = 17.50 L |



Shift In-charge

BATCH PROCESSING RECORD - CERTIFIER HYDROCHLORINE

CFCL / 001 / 99
CRYSTALLIZATION
GLR - 307

Batch No.
Stage
Equipment No.

Check the clearness status of the reactor-GLR-307 as per SOP No. QAD05.01

Collect the filtrate in GLR-307

Add 35 % Conc. LR Grade 10 L.

Add compound PCA 100.0 gm.

Stirring

Add DCE slowly

Stirring

Cooling -25°C brine

Stirring

Check the % of CFCL Content in kg.

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | Remarks | Sign of Shift Chemist / Operator |
|-------|---|-------------------|-----------------|----------------|-------|-------|----------------|---------|---|
| | | | | Std | From | To | Total | Std | Actual |
| 44. | Check the clearness status of the reactor-GLR-307 as per SOP No. QAD05.01 | ... | ... | 08.15 | 08.20 | 05' | ... | ... | ... |
| 45. | Collect the filtrate in GLR-307 | ... | ... | 08.30 | 09.45 | 95' | 191 | 19.8 | ... |
| 46. | Add 35 % Conc. LR Grade 10 L. | 54.0 | 54 | 30-40 | 09.45 | 10.28 | 43 | 192 | 20.0 |
| 47. | Add compound PCA | 100.0 | 100 | 01-02 | 10.28 | 10.30 | 0.2 | 192 | 18.2 |
| 48. | Stirring | ... | ... | 45-60 | 10.30 | 11-30 | 60 | 192 | 15-0 |
| 49. | Add DCE slowly | 455.00 | 455 | 45-60 | 11-30 | 12-30 | 60 | 192 | 19.0 |
| 50. | Stirring | ... | ... | 15-20 | 12-30 | 12-45 | 15' | 192 | 19.1 |
| 51. | Cooling -25°C brine | ... | ... | 12-45 | 13-30 | 45' | 222 | 0.4 | ... |
| 52. | Stirring | ... | ... | 45-60 | — | — | — | 222 | — |
| 53. | Check the % of CFCL Content in kg. | — | — | 13-30 | 16-20 | 170 | 212 | 1.1 | CFCL should be NMT : 0.2 % Observed : 0.22 % |

Shift in-charge

Plant In-charge

Amal

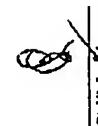
BATCH PROCESSING RECORD - CENTRIFUGATION & MILLING

Page 6 of 7

Batch No. : CFCL/ 001/99
 Stage : CENTRIFUGING & MILLING
 Equipment No. : CF-301 & MM - 301, 303

Date :

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature °C | | | Sign of Shift Chemist / Operator |
|-------|--|-------------------|-----------------|----------------|-------|-------|----------------|------|--------|----------------------------------|
| | | | | Std | From | To | Total | Std | Actual | |
| 54. | Check the cleanliness status of the Centrifuge as per SOP No. QAD05.02 | -- | -- | -- | 16.00 | 16.15 | 15 | -- | -- | K.R. |
| 55. | Feed the slurry to the centrifuge | -- | -- | 73.50 | 16.20 | 18.30 | 120 | 24.2 | 1.0 | K.R. |
| 56. | Spinning | -- | -- | 45.00 | 18.30 | 19.20 | 60 | 20.5 | -- | K.R. |
| 57. | Charge IPF in the reactor GLR-307 and cool it. | 130.0 L | 130.0 L | -- | 15.25 | 19.20 | 53 | 19.1 | 19.5 | K.R. |
| 58. | Spray wash with IPF | 130.0 L | 130.0 L | 10.15 | 19.20 | 19.40 | 20 | 19.1 | 19.5 | K.R. |
| 59. | Spinning | -- | -- | 45.00 | 19.40 | 20.40 | 60 | -- | -- | K.R. |
| 60. | Spray wash with acetone with reduced RPM of centrifuge | 150.00 L | 150.00 L | 15.20 | 21.10 | 21.30 | 30 | -- | -- | K.R. |
| 61. | Spinning at mode 2 RPM | -- | -- | 15--20 | 21.30 | 22.15 | 30 | -- | -- | K.R. |
| 62. | Spray wash with acetone with mode 1 reduced RPM | 150.00 L | 150.00 L | 15--20 | 22.15 | 23.00 | 45 | -- | -- | K.R. |
| 63. | Spinning at mode 2 RPM | -- | -- | 100--120 | 23.00 | 24.00 | 180 | -- | -- | K.R. |
| 64. | Unload the material from the centrifuge | -- | -- | 45.00 | 23.00 | 05.00 | 60 | -- | -- | K.R. |
| 65. | Clean the centrifuge as per SOP No. PRD03.0201 | -- | -- | 01.00 | 04.15 | 04.15 | 15 | -- | -- | K.R. |
| 66. | Check the cleanliness status of the Multimill as per SOP No. QAD05.03 | -- | -- | -- | 01.15 | 01.20 | 05 | -- | -- | K.R. |
| 67. | Mill the wet cake | -- | -- | 60.70 | 04.20 | 05.20 | 60 | -- | -- | K.R. |
| 68. | Clean the Multimill as per SOP No. PRD03.0203 | -- | -- | 05.20 | 05.30 | 05.30 | 10 | -- | -- | K.R. |

WET WEIGHT BEFORE DRYING : 225.6 Kg 99.6 +/- 26.0


Shift In-charge

Plant In-charge



BATCH PROCESSING RECORD - CERTIFUR HYDROCHLORIDE

Page 6 of 7

Batch No. : CRCL/061/99
 Stage : CENTRIFUGING & MILLING
 Equipment No. : CF - & MM - 3C 3.

| S.No. | Operations | Standard Quantity | Actual Quantity | Time (minutes) | | | Temperature 'C | Remarks | Sign of Shift / Chemist / Operator |
|-------|--|-------------------|-----------------|----------------|---------|------|----------------|---------|---|
| | | | | Std | From | To | Total | Std | Actual |
| 54. | Check the cleanliness status of the Centrifuge as per SOP NO. QAD05.02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 55. | Feed the slurry to the centrifuge | -- | -- | 75.90 | | | | 2+2 | |
| 56. | Spinning | -- | -- | 45.60 | | | | 20±5 | |
| 57. | Charge TFG in the reactor G.R. 307 and cool R. | 130.0 Ltr. | | | | | | 19±1 | |
| 58. | Spray wash with TFG | 130.0 Ltr. | | 10-15 | | | | 19±1 | Volume of TFG + TRF |
| 59. | Spinning | -- | -- | 45-60 | | | | -- | |
| 60. | Spray wash with acetone with reduced RPM of centrifuge | 150.00 Ltr. | | 15-20 | | | | -- | |
| 61. | Spinning at mode 2 RPM | -- | | -- | 15-20 | | | -- | |
| 62. | Spray wash with acetone with mode 1 reduced RPM | 150.00 Ltr. | | 15-20 | | | | -- | |
| 63. | Spinning at mode 2 RPM | -- | | -- | 100-120 | | | -- | |
| 64. | Unload the material from the centrifuge | -- | -- | 45-60 | | | | -- | |
| 65. | Clean the centrifuge as per SOP No. PRD03.0201 | -- | -- | -- | -- | | | -- | |
| 66. | Check the cleanliness status of the Multimill as per SOP No. QAD05.03 | -- | -- | -- | -- | | | -- | |
| 67. | Mill the wet cake | -- | -- | 60-70 | 14-20 | 5-20 | 60 | -- | Operate the Multimill as per SOP No. PRD03.0102 |
| 68. | Clean the Multimill as per SOP No. PRD03.0203 | -- | -- | -- | -- | | | -- | |

WET WEIGHT BEFORE DRYING : _____ Kg

Shift In-charge

Plant In-charge



BATCH PROCESSING RECORD - CEFTIOFOR HYDROCHLORIDE

Page 7 of 7

Batch No. : CFCL/001/99

Stage : DRYING

Equipment No. :

Wet Weight : VTD-302
99.6 Kg.

P.A.R.T - I

Specified hot water temperature in the dryer : 40 - 45°C

Date :

| S.No. | Operations | Time (minutes) | | | Vacuum mmHg | Temp. | Remarks | Sign of Shift Chenla/ Operator |
|---|--|----------------|-------|-------|-------------|-------|--|-----------------------------------|
| | | Std | From | To | | | | |
| 1. | Check for cleanliness status of the dryer as per SOP No. QAD05.04 | .. | 05.20 | 05.25 | 05 | .. | .. | K.R. |
| 2. | Charge the material in the dryer | 45.60 | 05.25 | 06.00 | 35 | .. | .. | K.R. |
| 3. | Apply vacuum | 65.70 | 06.00 | 09.15 | 25 | .. | Operate the Drier as per SOP No. PRD 03.01.01 | K.T.M. |
| 4. | Apply hot water | .. | 07.15 | 07.45 | 1530 | - | Make sure the specified temperature. | K.T.M. |
| 5. | Draw sample after 240 min. of drying for checking MC (See Remarks) | 540-600 | 01.00 | 8.45 | 1605 | - | MC should not be more than 5.0% Observed MC : 3.7 | K.T.M. |
| Note down vacuum at regular interval of 60 min. | | | | | | | | |
| 60 | 06.00 | 06.50 | 07.00 | 6.50 | 3500 | - | .. | K.T.M. |
| 120 | 06.50 | 07.50 | 08.00 | 120 | 3500 | 41.0 | .. | K.T.M. |
| 180 | 07.50 | 08.50 | 09.00 | 18.0 | 3500 | 41.0 | .. | K.T.M. |
| 240 | 08.50 | 09.50 | 10.00 | 24.0 | 3500 | 41.0 | .. | K.T.M. |
| 300 | 09.50 | 10.50 | 11.00 | 30.0 | 3500 | 41.0 | .. | K.T.M. |
| 360 | 10.50 | 11.50 | 12.00 | 36.0 | 3500 | 41.0 | .. | K.T.M. |
| 420 | 11.50 | 12.50 | 13.00 | 42.0 | 3500 | 41.0 | .. | K.T.M. |
| 480 | 12.50 | 13.50 | 14.00 | 48.0 | 3500 | 42.0 | .. | K.T.M. |
| 540 | 13.50 | 14.50 | 15.00 | 54.0 | 3500 | 42.3 | .. | K.T.M. |
| 600 | 14.50 | 15.50 | 16.00 | 60.0 | 3500 | 44.0 | .. | K.T.M. |
| 6. | Unload the material | 45.60 | 8.45 | 9.45 | 60 | - | 67.34 Kg (945.251.00) g | K.T.M. |
| 7. | Clean the dryer as per SOP No: PRD 03.02.05 | 05.10 | 9.45 | 9.55 | 10 | - | .. | K.T.M. |

Break the vacuum by nitrogen slowly.

Total Dry Weight : 67.34 Kg

Rs.

Shift In-charge

Plant In-charge

BATCH PROCESSING RECORD - CERTIOFUM HYDROCHLORIDE

Page 7 of 7

Batch No. : CFCL/001/99
 Stage : DRYING
 Equipment No. : VTD- A 03
 Wet Weight : 126.0 Kg

Specified hot water temperature in the dryer : 40 - 45°C

Date :

| S.No. | Operations | Time (minutes) | | | Vacuum mm/Hg | Temp. °C | Remarks | Sign of Shift Chemist / Operator |
|-------|--|----------------|-------|-------|-----------------|-------------|---------|--|
| | | Std | From | To | | | | |
| 1. | Check for cleanliness status of the dryer as per SOP No. QAD05.04 | " | 5.25 | 5.30 | 05 | " | " | K. Rao |
| 2. | Charge the material in the dryer | 45.60 | 5.30 | 6.00 | 30 | " | " | K. Rao |
| 3. | Apply vacuum | 65.70 | 6.80 | 7.15 | 75 | " | " | K. Rao |
| 4. | Apply hot water | " | 7.15 | 16.00 | 51.5 | " | " | K. Rao |
| 5. | Draw sample after 240 min. of drying for checking MC (See Remarks) | 540 - 600 | 6.00 | 16.00 | 600 | " | " | K. Rao |
| | Note down vacuum at regular interval of 60 min. | 0 | 6.00 | 6.00 | 0 | " | " | K. Rao |
| | | 60 | 6.00 | 7.00 | 60 | " | " | K. Rao |
| | | 120 | 6.00 | 6.60 | 120 | " | " | K. Rao |
| | | 180 | 6.80 | 9.80 | 160 | " | " | K. Rao |
| | | 240 | 6.80 | 1.00 | 240 | " | " | K. Rao |
| | | 300 | 6.80 | 11.60 | 300 | " | " | K. Rao |
| | | 360 | 6.00 | 12.00 | 360 | " | " | K. Rao |
| | | 420 | 6.00 | 13.00 | 420 | " | " | K. Rao |
| | | 480 | 6.00 | 14.00 | 480 | " | " | K. Rao |
| | | 540 | 6.00 | 15.00 | 540 | " | " | K. Rao |
| | | 600 | 6.80 | 16.00 | 600 | " | " | K. Rao |
| 6. | Unload the material | 45.60 | 16.00 | 16.45 | 45 | " | " | K. Rao |
| 7. | Clean the dryer as per SOP No: PRD.03.0205 | 05.10 | 16.55 | 16.55 | 10 | " | " | K. Rao |

Break the vacuum by nitrogen slowly.
 Day : 1st - 87.06

Total Dry Weight : 154.4 Kg.

Shri. S. S. S.
Shift In-charge

Plant In-charge

A. M. M.

DEVIATION REPORT - FORM A

Date:

Name of the product: CEFTIOFUQ HYDROCHLORIDE Batch No.: CFCL/001/99
Deviated Operation & parameter : Add. of Aminothane & Time

BPR page No.: 1 of 7 Serial No.:

Standard Value : 45-60 mts Actual Value: 70 mts

Reason for Deviation: from Receiver PRC 312 bottom valve and G/F 30A receiving valve kept open fully but it took that much time

Shift In charge: *R. J. Mathew*

Chemist / Operator: *R. J. Mathew*

ANALYSIS

Occurrence : First time Rarely Frequently

Corrective Action taken / planned These were few batches with new process where input may take some deviation - Based on findings from #1 to 7 we will fix the specification - (new process furnace was used) the addition line system will be chilled again *R. J. Mathew*

Head-Production

Comments (Criticality on the Yield/ Quality of Output)

Not critical

G. P. Patel

Head / In charge PD Lab

Material Disposition: Accepted as is Reprocessed Rejected

Approved by: *R. J. Mathew*

Quality Assurance

Date:

Effective Date: